



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,014	12/31/2001	Mina M. Azad	PAT 2224-2	5843
26123	7590	09/14/2007	EXAMINER	
BORDEN LADNER GERVAIS LLP			GEREZGIHER, YEMANE M	
Anne Kinsman			ART UNIT	PAPER NUMBER
WORLD EXCHANGE PLAZA			2144	
100 QUEEN STREET SUITE 1100				
OTTAWA, ON K1P 1J9				
CANADA				
NOTIFICATION DATE	DELIVERY MODE			
09/14/2007	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blgcanada.com
aarmstrongbaker@blgcanada.com
akinsman@blgcanada.com

Office Action Summary	Application No.	Applicant(s)
	10/032,014	AZAD, MINA M.
Examiner	Art Unit	
Yemane M. Gerezgihen	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 June 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 24-39 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 24-39 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 May 2002 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

1. Applicant's submission filed on 06/15/2007 has been entered. Claims 24-39 remain pending in this application.

Response to Arguments

2. Applicant's arguments filed 06/15/2007 have been fully considered but they are not persuasive.

→ The applicants recite, the following:

...The Declaration proves a date of conception of the claimed invention of at least July 4, 2001. Bearing in mind that the disclosure appended to the Declaration is an internal document for use within the Applicant's corporate structure, not every limitation can be expected to have been stated in the same manner as it is in the claims as pending. Applicant submits that it is the specification of the application that should provide the enabling disclosure to allow the invention to be practiced by a person skilled in the art. In accordance with 37 CFR § 1.131(b), the disclosure appended to the Declaration serves only to prove that the invention was conceptualized by the inventor prior to the effective date of the references cited by the Examiner. In support, MPEP § 715.07 states that "The purpose of filing a [37 CFR 1.]131 affidavit is not to demonstrate prior invention, *per se*, but merely to antedate the effective date of a reference." (Remarks, Page 6 of 9, ¶3).

→ Examiner respectfully disagrees. It should be noted that *an accompanying Exhibit need not support all claimed limitations, provided that any missing limitation is supported by the declaration itself.*

Ex parte Ovshinsky, 10 USPQ2d 1075 (Bd. Pat. App. & Inter. 1989). The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the

particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice “amounts essentially to mere pleading, unsupported by proof or a showing of facts” and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit “asserts that facts exist but does not tell what they are or when they occurred.”). In this case neither the exhibit(s) submitted nor the declaration supports the limitations directed to functional limitations of determining a subpath to be segmented in the LSP, a function directed to defining segments in the subpath; a function directed to labeling each segment defined in the subpath; a function directed to notifying nodes in the LSP of the segmentation of the subpath and notifying the nodes information regarding a processing of DTUs labeled in accordance with the labels associated with the segments of the subpath; and LSRs having and/or lacking predetermined capability (OAM processing capability) as recited in the claims.

→ The applicant failed to properly map each claimed limitations with the submitted evidence (declaration itself and/or the exhibits as presented). The applicant further attempted to show support of the allegedly lacking limitations by force fitting or equating the missing functional limitations with mere general terms and expressions contained in the exhibits (see Remarks, Page 6, ¶4 through Page 7, ¶2). The presence of broad terms is not equivalent to functional limitations/modules that actually perform a specific function as recited in the claims. Thus, the rejection is maintained accordingly.

Art Unit: 2144

3. The declaration filed on 12/01/2006 under 37 CFR 1.131 has been re-considered, but it remains ineffective to overcome the prior art of record for the following reasons:

None of the submitted exhibits A-C fully support the claimed functional limitations as recited in this instant application. For instance, the submitted Exhibits A-C fail to show a full support of claimed limitations directed to functions of determining a subpath to be segmented in the LSP, a function directed to defining segments in the subpath; a function directed to labeling each segment defined in the subpath; a function directed to notifying nodes in the LSP of the segmentation of the subpath and notifying the nodes information regarding a processing of DTUs labeled in accordance with the labels associated with the segments of the subpath; and LSRs having and/or lacking predetermined capability (OAM processing capability) as recited in the claims.

Thus, declaration filed remains insufficient to overcome the pending rejections as applied for the reasons disclosed above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 24, 34 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Carpin et al., (US 20030063613 A1) hereinafter referred to as Carpin.

As per claim 24: Carpin disclosed a method of segmenting a label switched path (LSP) present in a multi-protocol label switching (MPLS) network, the LSP having an ingress label switched router (LSR), an egress LSR and intermediate nodes [Fig. 7, Page 3, ¶s0034-0038 and Page 8, ¶0079], the method comprising steps of:

Determining a subpath to be segmented in the LSP [Fig. 7 (also disclosed below) and Page 8, ¶0079, a Primary PLS #203 is segmented into sub paths]; defining segments in the subpath [Fig. 7, segments representing the sub paths are defined]; associating a label to each segment defined in the subpath [Fig. 7 and 8, ¶0077 and ¶0079, defined segments and the sub paths of the primary LSP are labeled].

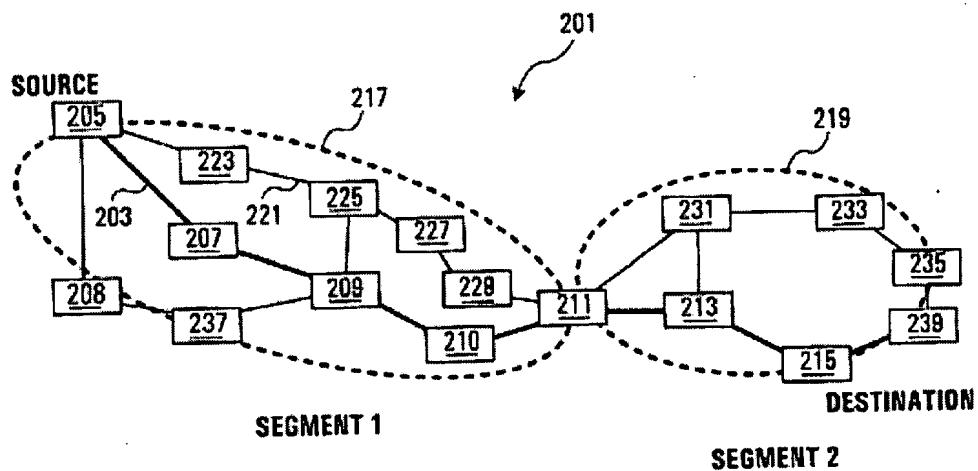


FIG. 7

Claims 34 and 39 have substantially similar limitations as in claim 24. Thus, they are rejected with the same rationale. Furthermore, since data packets or cells are forwarded or routed only using a label associated with the LSP, labeling or binding label to the packets/cells in accordance with sub paths between intermediate LSRs is an inherent process of an MPLS network as disclosed by the teachings of Carpini. Furthermore, since these features are performed using a computer system modules and a processor in the process of labeling and routing information on the MPLS network is inherently disclosed by the teaching of Carpini.

6. Claims 24-29, 31, 34 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Reeves et al. (US 20020071390 A1) hereinafter referred to as Reeves.

As per claim 24: Reeves disclosed a method of segmenting a label switched path (LSP) present in a multi-protocol label switching (MPLS) network, the LSP having an ingress label switched router (LSR), an egress LSR and intermediate nodes [Reeves, Abstract, Page 1, ¶0004-0005], the method comprising steps of:

Determining a subpath to be segmented in the LSP [Reeves Page 1, ¶0003] by defining a new partial path that is dynamically labeled by the LDP (Label Distribution Protocol); defining segments in the subpath; associating a label to each segment defined in the subpath [Reeves, Abstract, Page 1, ¶0004-0005, Reeves disclosed creating partial paths and allocating labeling resources to the partial paths].

As per claim 25: Reeves disclosed the ingress LSR and the egress LSR have a predetermined capability; at least a subset of said intermediate nodes are LSRS having the predetermined capabilities; and the step of defining segments in the subpath induces defining segments between LSRS having the predetermined capability [Reeves disclosed the LRS's predetermined capability including the ingress and egress LSR's having labeling (label allocation) capability by employing at least one LDP at each and every LSR, Page 1, ¶0005].

As per claim 26: Reeves disclosed notifying nodes in the LSP of the segmentation of the subpath [Abstract].

As per claim 27: As per claim notifying the nodes includes providing information to the nodes regarding a processing of data transfer units (DTUs) labeled in accordance with the labels associated with the segments of the subpath [Abstract, Page 1, ¶0004-0005, node(s) are notified regarding parameters associated with partial path or segment of the LSP].

As per claim 28: Reeves further disclosed that notifying the nodes is effected with a label distribution protocol (LDP) [Abstract, Page 1, ¶0004-0005 and Page 5, ¶0061].

As per claim 29 have limitation substantially similar to claim 25, thus it is rejected with the same rationale.

As per claim 31: Reeves disclosed the information includes routing information [Page 1, ¶0005, and Page 4, ¶0056, notification information (mapping information) or routing information used for routing of the partial/segment path is transmitted a node].

Claims 34 and 39 have substantially similar limitations as in claim 24. Thus, they are rejected with the same rationale. Furthermore, since data packets or cells are forwarded or routed only using

a label associated with the LSP, labeling or binding label to the packets/cells in accordance with sub paths between intermediate LSRs is an inherent process of an MPLS network as disclosed by the teachings of Reeves.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 30, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reeves et al. (US 20020071390 A1) in view of Mark et al. (U.S. Patent Number 7012933) hereinafter referred to as Mark.

Note: MPLS is a widely supported technique of speeding up data communication over combined IP/ATM networks, which improves the speed of packet processing and enhances performance of the network. Having that said, According to the standard (RFC 3031), MPLS network comprises substantial limitations recited in the claims such as ingress LSR (label switched router), LSP (label switched path), intermediate LSRs for switching/routing the communication messages (DTUs). In this typical MPLS network ingress LSR receives inbound packets or cells (DTUs) and routes the message according to the label of the message from one intermediate node (LSR) to another using a labeling technique to a destination egress LSR, where outbound information is switched to destination device or network.

As per claims 30, 32 and 33: Reeves substantially disclosed the invention as claimed. However, failed teach the predetermined capability information of the LSRs been OAM for determining a performance of a segment of the sub path. However, as evidenced by the teaching of Mark LSRs capable of processing OAM information for performance monitoring was known in the

Art Unit: 2144

art at the time the invention was made (Mark, Fig. 3, Fig. 5B, Fig. 8, Column 1, Lines 33-67). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Mark related to LSRs capable of processing OAM information for performance monitoring and have modified the teachings of Reeves related to segmenting an LSP in a MPLS network in order to interrogate and control operation of the network and detect any deterioration of the expected performance in the MPLS network (Mark, Column 1, Lines 41-63).

9. Claims 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpini et al., (US 20030063613 A1) in view of Mark et al. (U.S. Patent Number 7012933).

Note: MPLS is a widely supported method of speeding up data communication over combined IP/ATM networks, which improves the speed of packet processing and enhances performance of the network. Having that said, According to the standard (RFC 3031), MPLS network comprises substantial limitations recited in the claims such as ingress LSR (label switched router), LSP (label switched path), intermediate LSRs for switching/routing the communication messages (DTUs). In this typical MPLS network ingress LSR receives inbound packets or cells (DTUs) and routes the message according to the label of the message from one intermediate node (LSR) to another using a labeling technique to a destination egress LSR, where outbound information is switched to destination device or network.

As per claims 35-38: Carpini substantially disclosed the invention as claimed. However, failed teach the predetermined capability information of the LSRs been OAM for determining a performance of a segment of the sub path, the OAM information including a time stamp determining transmit time of the DTU in accordance with the time stamp. However, as evidenced by the teaching of Mark LSRs capable of processing OAM information for performance monitoring was known in the art at the time the invention was made (Mark, Fig. 3, Fig. 5B, Fig. 8, Column 1, Lines 33-67). Furthermore, it was commonly known for an OAM cell or information to include a time stamp for determining round trip delay measurement of (For example, see Poulin U.S. Patent Number 6545979, Title, Abstract and Column 2, Lines 30-42).

Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the commonly known teaching of embedding a time stamp within a packet or OAM cell and the teachings of Mark related to LSRs capable of processing OAM information for performance monitoring and have modified the teachings of Carpini related to segmenting an LSP in a MPLS network in order to determine round trip delay measurement of the OAM cell and further to interrogate and control operation of the network and detect any deterioration of the expected performance in the MPLS network (Mark, Column 1, Lines 41-63).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2144

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane M. Gerezgiher whose telephone number is (571) 272-3927. The examiner can normally be reached on 9:00 AM - 6:00 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Y. Gerezgiher
Patent Examiner
AU: 2144, TC: 2100


WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100